

### AMENDMENTS TO THE CLAIMS

1. (*Currently Amended*) A blood processing system comprising  
a first container to receive blood for centrifugal processing into a first component and a  
second component comprising plasma,  
a second container to receive the second component from the first container, and  
a filter to remove ~~cellular species~~ red blood cells and platelets from the second component,  
so that the second component is essentially free of red blood cells and platelets.
2. (*Original*) A blood processing system according to claim 1  
wherein the first component comprises red blood cells.
3. (*Original*) A blood processing system according to claim 1  
further including a filter to remove leukocytes from the first component in a downstream  
flow direction from the first container.
4. (*Withdrawn*). A blood processing system according to claim 1  
further including a filter to remove leukocytes from blood in an upstream flow direction  
from the first container.
5. (*Original*) A blood processing system according to claim 1  
further including a transfer container to receive the first component from the first container.
6. (*Original*) A blood processing system according to claim 5  
further including a filter located between the first container and the transfer container to  
remove leukocytes from the first component.
7. (*Original*) A blood processing system according to claim 1  
wherein the filter to remove cellular species from the second component is located in an  
upstream flow direction from the second container.

8. *(Original)* A blood processing system according to claim 1 wherein the filter to remove cellular species from the second component is located between the first container and the second container.

9(*Withdrawn*). A blood processing system according to claim 1 wherein the filter to remove cellular species from the second component is located in a downstream flow direction from the second container.

10. *(Original)* A blood processing system according to claim 1 further including a transfer container communicating with the second container in a downstream flow direction from the second container.

11(*Withdrawn*). A blood processing system according to claim 10 wherein the filter to remove cellular species from the second component is located between the second container and the transfer container.

12. *(Original)* A blood processing system according to claim 1 further including an auxiliary container holding an additive solution.

13. *(Original)* A blood processing system according to claim 12 wherein the auxiliary container communicates with the first container.

14(*Withdrawn*). A blood processing system according to claim 12 wherein the auxiliary container communicates with the second container.

15(*Withdrawn*). A blood processing system according to claim 14 wherein the filter to remove cellular species from the second component is located between the second container and the auxiliary container.

16. *(Original)* A blood processing system according to claim 12 wherein the auxiliary container communicates with both the first and second containers.

17. (*Original*) A blood processing system according to claim 16 wherein the filter to remove cellular species from the second component is located between the second container and the auxiliary container.

18. (*Original*) A blood processing method comprising processing whole blood using a system as defined in claim 1.

19. (*Newly Added*) A blood processing system according to claim 1, the filter also removing leukocytes from the second component.